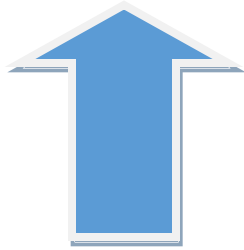


Bottom-Up Processing



Individual elements
to whole; analysis
begins with sensory
receptors and works
up to brain's
integration of sensory
info

Top-Down Processing



Whole to the parts;
info processing
guided by higher-
level mental
processes, like our
own experience and
expectations

Agonist



Chemicals that mimic the actions of neurotransmitter; stimulates a response by binding to a receptor site

Antagonist



Chemicals that oppose action of a neurotransmitter; inhibits or blocks a response by binding to receptor site

Foot-in-the-Door



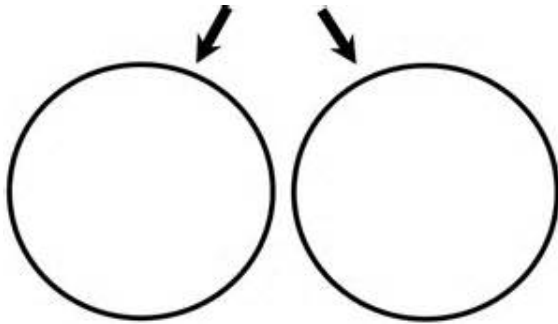
Start small then go big (ex. \$5 first, then \$100)

Door-in-the-Face



Start big to get to small (ex. If you want a skateboard, ask for a car)

Random Assignment



Each participant has equal chance of being placed into any group

Random Sample



Process of choosing the research participants from the population; happens before the assignment

Applied Research



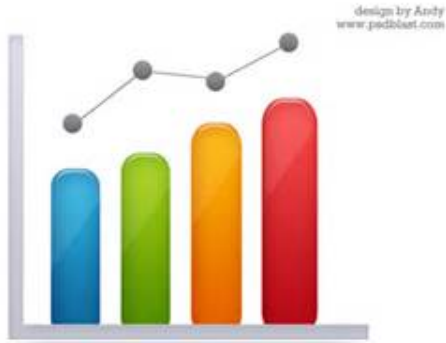
Clear, practical use;
scientific study that
aims to solve
practical problems

Basic Research



Pure science that
aims to increase the
scientific knowledge
base

Quantitative Data



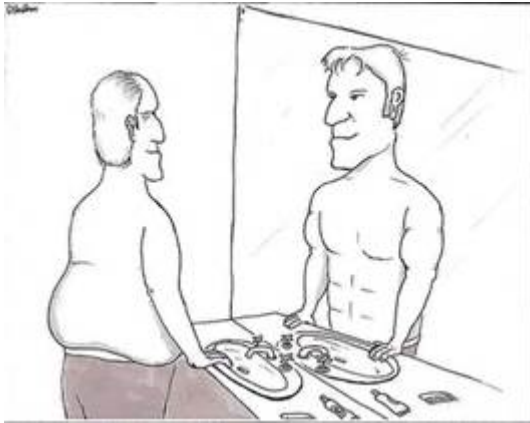
Deals with numbers-
height, weight, time

Qualitative Data



Deals with
description- color,
smell, taste

Self-Serving Bias



Tendency to
overstate one's role
in a positive venture
& underestimate in a
failure

Self-Fulfilling Prophecies



Explains how
people's ideas about
others can shape the
behavior of those
others

Collectivist Cultures



Japan (Eastern),
family/group stressed

Collectivism: Giving
priority to the goals of
one's group and
defining one's identity
accordingly

Individualistic Cultures



USA (Western),
uniqueness of
individual stressed

Individualism: Giving
priority to one's own
goals over group goals
and defining one's
identity in terms of
personal attributes rather
than group identifications

Structuralism



School of thought that thought the structure (parts of the brain) and elements of immediate, conscious experience to be proper subject matter of psychology- Wundt, Titchener (USA)

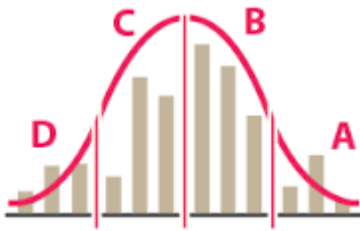
*Introspection

Functionalism



School of thought that tried to understand how & why the mind functions and is related to consciousness- James

Descriptive Statistics



Numerical data used to measure and describe characteristics of groups. Includes measures of central tendency (mean, mode, median) and measures of variation (standard deviation)

Inferential Statistics



Numerical data that allow one to generalize – to infer from sample data the probability of something being true of a population

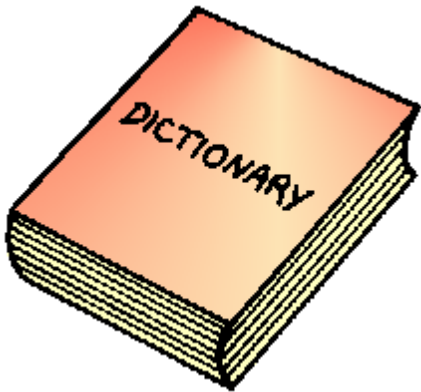
Statistically Significant-Results not due to chance

Syntax



Arrangement of words and phrases to create well-formed sentences in a language; Grammar

Semantics



The meaning of a word, phrase, sentence, or text

Anterograde amnesia



An inability to form
new memories

Patient H.M.

Damage in
Hippocampus

Retrograde Amnesia



An inability to
retrieve information
from one's past

Systematic desensitization



Type of exposure therapy that associates a pleasant, relaxed state with gradually increasing anxiety-triggering stimuli.

Commonly used to treat phobias.

Aversion Conditioning



Behavior therapy in which an aversive stimulus is paired to elicit an undesirable response

Ex. bad behavior followed by shock

Absolute Threshold



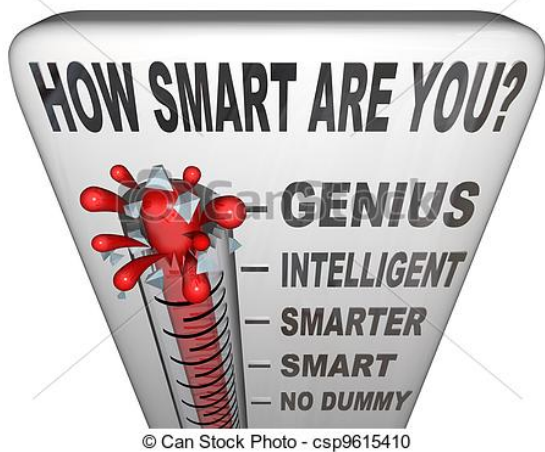
Level needed to detect stimulus 50% of the time

Just-noticeable difference (JND)



Adjustment needed to perceive change in stimulus level- ex. music level

Construct Validity



whether a scale or test measures the **construct** adequately.

Ex. measurement of the human brain-intelligence, creativity level of emotion, proficiency or ability

Content Validity



Content of a test is representative of the domain it is supposed to cover

Ex. Unit test covers info from that chapter

Independent Variable



Variable that is being tested

Ex. Drug, treatment, condition

Dependent variable



What is being measured

Ex. Test score, change in behavior, frequency of responses

Experimental Group



Group that is tested;
given the IV

Control Group



Compared to the
experimental,
receives the
placebo in a drug
experiment.

No IV applied

Left brain



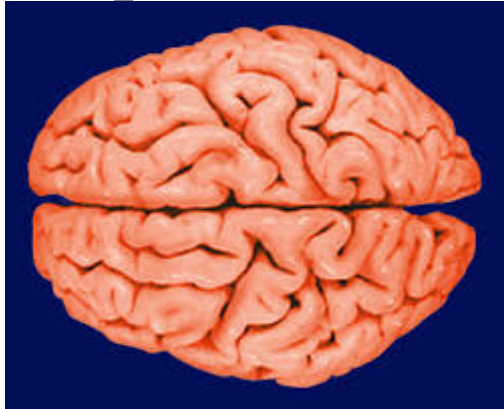
Language and logic

Right brain



Creative and spatial,
faces

Corpus Callosum



Band of fibers that connect left and right hemisphere.

Cut for split brain procedure (epilepsy)

Cerebral Cortex



“bark” that covers the brain;
fissures/wrinkles
increases surface area
of brain

Sympathetic nervous system



Arouses in response
to stimuli

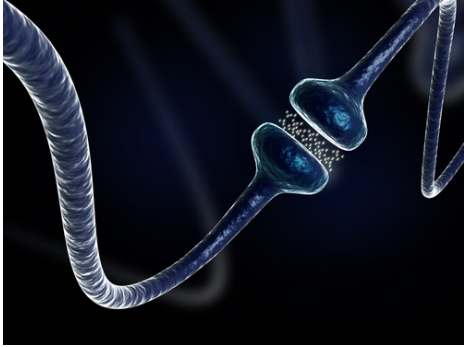
“fight or flight”

Parasympathetic nervous system



Calming; responses
back to normal

Neurotransmitters



In the nervous system, fast messages between neurons:

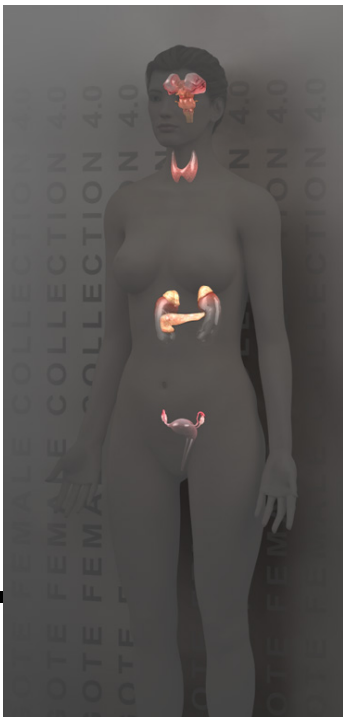
Acetylcholine

Dopamine

Endorphins

Serotonin

Hormones



Chemical messages in bloodstream

controlled by

hypothalamus

(endocrine system)

Very slow, but long lasting

Ex. Adrenaline,

Testosterone,

Estrogen, Orexin,

Oxytocin

Lateral hypothalamus



LH=Large Hunger
Stimulates hunger

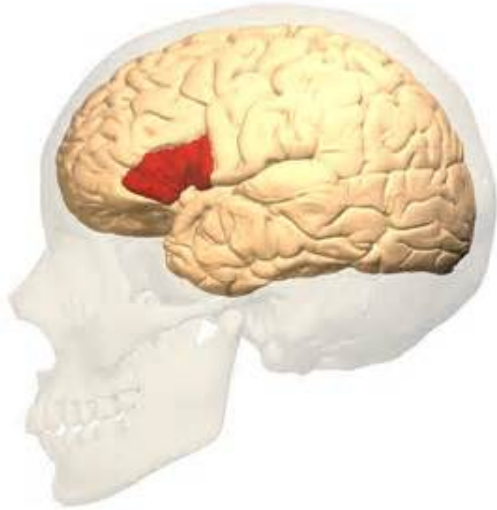
Ventromedial hypothalamus



VMH=very minute
hunger

Suppresses hunger

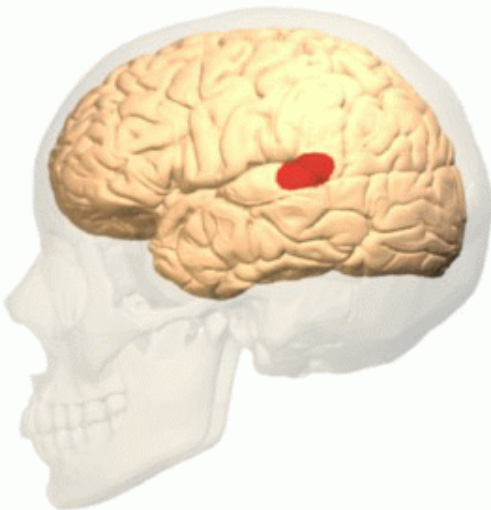
Broca's Area



Left frontal lobe-

Makes words

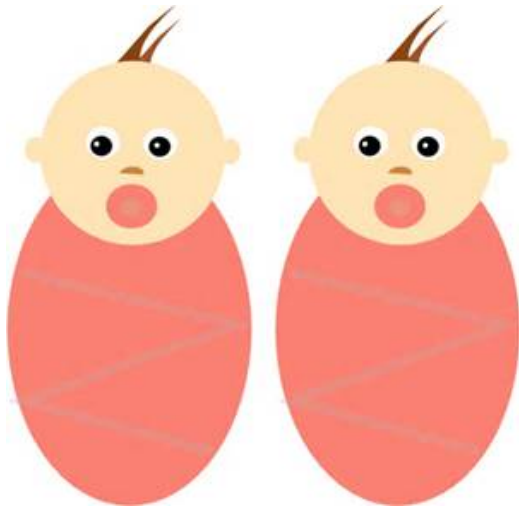
Wernicke's area



Left temporal lobe-

Comprehends words

Identical twins



Same fertilized egg;
monozygote

Vital for studies in
nature vs. nurture

Fraternal twins



Two separate eggs;
dizygotic

Just like any other
siblings

Afferent neurons



Sensory neurons-
info from body to
brain

Efferent neurons



Motor neurons-
brain sends
messages to body

(Takes *effort* to
move hand, etc)

Assimilation



Incorporate our experiences into existing schemas

Ex. All four-legged animals are “doggies”

Accommodation



When info violate schema, we accommodate and change schema

“doggies” are different than “kitties”

Concrete Operational Stage of Development



7-11 years

Logical thinking
about concrete events

Understand analogies
and mathematical
operations

Conservation
mastered

Formal Operational Stage of Development



12- adulthood

Philosophical
thinking; Abstract
reasoning

Mature, moral logic

Sensation



Activation of senses
from sensory organs

Bottom-up
processing

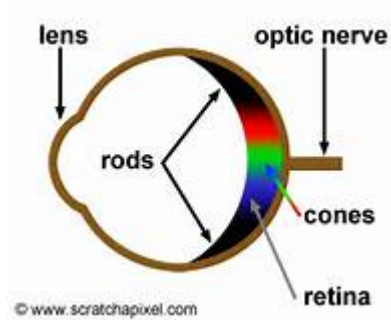
Perception



Process of
understanding
sensations

Top-down
processing

Rods



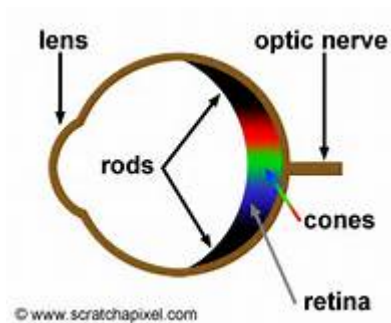
Peripheral Vision

Night vision

Respond to black and white

Outnumber cones

Cones



Color vision

Clustered around the fovea

Classical conditioning



Involuntary/reflexive
response to stimuli

Neutral stimulus
paired with
unconditioned
stimulus to produce
similar response

Operant conditioning



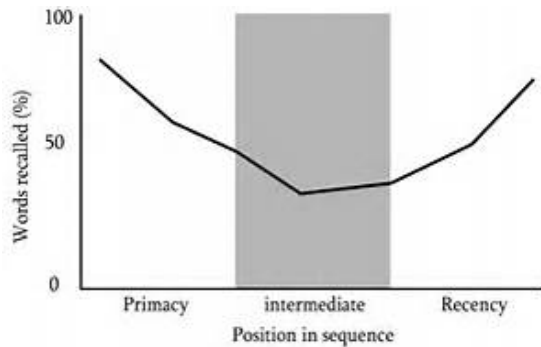
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Voluntary

Active change in
behavior resulting
from rewards or
consequences that
follow response

-Goal oriented

Primacy effect

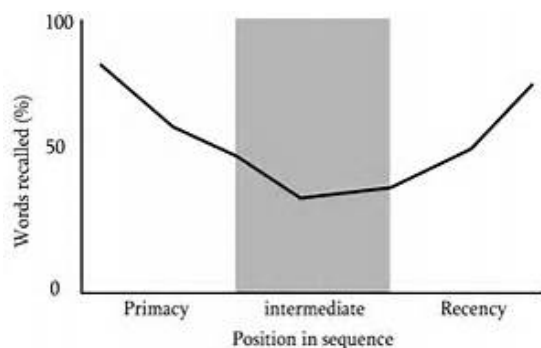


Part of serial position effect

First items on list are remembered

Ex. Founding fathers

Recency effect



Part of serial position effect

Last items on list remembered

Ex. Presidents from your lifetime

Proactive interference



P.O.R.N.

Old information
interferes with
remembering new
info

Retroactive Interference



P.O.R.N.

New info interferes
with remembering
the old info

Implicit memory



Non-declarative;
procedures and
skills
Difficult to explain

Cerebellum

Explicit memory



Declarative; episodes
of events and facts

Amygdala,
hippocampus,
thalamus

(hippo on campus?
you would
remember)

Recall memory



No cues to assist in remembering-

Short answer, free response, etc.

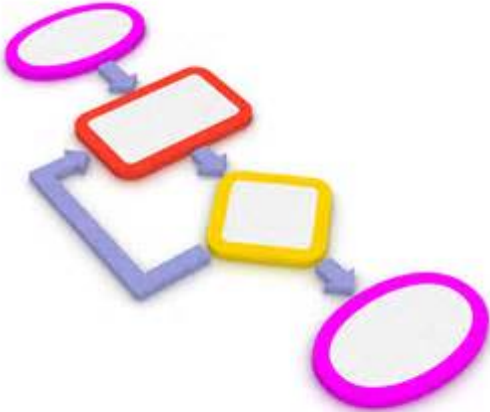
Recognition memory



Some hints/context cues

Ex. Multiple choice questions

Algorithms



Step-by-step
formula to solving
a problem

Takes time, but
ensures accuracy

Heuristics



Rule-of-thumb,
shortcut

Much faster than
algorithm, but less
accurate